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PATENT

Attorney Docket No.: 019186-000640US

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By: 

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

LUBY, Michael G.

Application No.:

Filed:

For: INFORMATION ADDITIVE CODE
GENERATOR AND DECODER FOR
COMMUNICATION SYSTEMS

Examiner:

Art Unit:

INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR §1.97 and
§1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. In accordance with 37 CFR §1.98(d), copies of the references can be found in Application No. 10/076,623, filed February 4, 2002 (Attorney Docket No. 019186-000630). It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

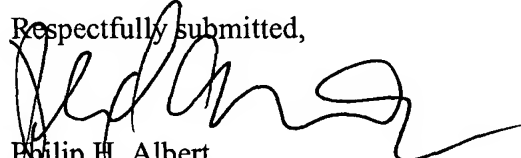
As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement.

However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



Philip H. Albert
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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known

Sheet	1	of	2	Application Number	
				Filing Date	
				First Named Inventor	LUBY, MICHAEL G.
				Group Art Unit	
				Examiner Name	
				Attorney Docket Number	019186-000640

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	AA	4,365,338		McRAE et al.	12/21/82	
	AB	5,432,787		CHETHIK	07/11/95	
	AC	5,608,738		MATSUSHITA	03/04/97	
	AD	5,617,541		ALBANESE et al.	04/01/97	
	AE	5,805,825		DANNEELS et al.	06/08/98	
	AF	5,983,383		WOLF	11/09/99	
	AG	5,993,056		VAMAN et al.	11/30/99	
	AH	6,073,250		LUBY et al.	06/06/00	
	AI	6,081,909		LUBY et al.	06/27/00	
	AJ	6,081,918		SPIELMAN	06/27/00	
	AK	6,163,870		LUBY et al.	12/19/00	
	AL	6,178,536		SORKIN	01/23/01	
	AM	6,195,777		LUBY et al.	02/27/01	

FOREIGN PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ³
		Office	Number ⁴	Kind Code ⁵ (if known)				
	AN		EP 0 854 650 A2		European Patent Office	07/22/98		
	AO		WO 96 34463 A		World Intellectual Property Organization	10/31/96		

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449B/PTO		Complete If Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	
		Filing Date	
		First Named Inventor	LUBY, MICHAEL G.
		Group Art Unit	
		Examiner Name	
Sheet 2 of 2	Attorney Docket Number	019186-000640	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	AP	ALON et al., "Linear Time Erasure Codes With Nearly Optimal Recovery," Proceedings Of The Annual Symposium On Foundations Of Computer Science, US, Los Alamitos, IEEE Comp. Soc. Press, Vol. Symp. 36, Pages 512-516 (October 23, 1995), XP 000557871	
	AQ	BIGLOO et al. "A Robust Rate-Adaptive Hybrid ARQ Scheme For Frequency-Hopped Spread-Spectrum Multiple-Access Communication Systems" IEEE Journal On Selected Areas In Communications, US, IEEE Inc, New York, (June 1 1994) pages 917-924, XP0000464977	
	AR	BLÖMER et al., "An XOR-Based Erasure-Resilient Coding Scheme," ICSI Technical Report No. TR-95-048 (1995) [avail. at ftp://ftp.icsl.berkeley.edu/pub/techreports/1995/tr-95-048.pdf]	
	AS	BYERS et al., "A Digital Fountain Approach to Reliable Distribution of Bulk Data", International Computer Science Institute Technical Report TR-98-013 (May, 1998) [available at ftp://ftp.icsl.berkeley.edu/pub/techreports/1998/tr-98-013.pdf]	
	AT	BYERS et al., "Accessing Multiple Mirror Sites In Parallel: Using Tornado Codes to Speed Up Downloads," International Computer Science Institute Technical Report TR-98-021 (1998) [available at http://www.icsl.berkeley.edu/~luby/PAPERS/mimdown.ps]	
	AU	BYERS et al. "Accessing Multiple Mirror Sites In Parallel: Using Tornado Codes To Speed Up Downloads" Proceeding IEEE Infocom. The Conference On Computer Communications, US New York, (March 21 1999) pages 275-283, XP000868811	
	AV	ESAKI et al. "Reliable IP Multicast Communication Over ATM Networks Using Forward Error Correction Policy" IEICE Transactions On Communications, JP, Institute of Electronics Information and Comm. ENG. Tokyo, vol. E78-V, No. 12, (December 1995), pages 1622-1637, XP000556183	
	AW	LUBY et al., "Analysis of Low Density Codes and Improved Designs Using Irregular Graphs", International Computer Science Institute Technical Report TR-97-045 (November, 1997) [available at ftp://ftp.icsl.berkeley.edu/pub/techreports/1997/tr-97-045.pdf]	
	AX	LUBY et al., "Analysis of Random Processes via And-Or Tree Evaluation," ICSI Technical Report No. TR-97-042 (1997) and Proceedings of the 9th Annual ACM Symposium on Discrete Algorithms (1998) [available at ftp://ftp.icsl.berkeley.edu/pub/techreports/1997/tr-97-042.pdf]	
	AY	LUBY et al., "Improved Low-density Parity-Check Codes Using Irregular Graphs and Belief Propagation", International Computer Science Institute Technical Report TR-97-044 (November, 1997) [available at ftp://ftp.icsl.berkeley.edu/pub/techreports/1997/tr-97-044.pdf]	
	AZ	LUBY et al., "Tornado Codes," <u>Practical Loss-Resilient Codes</u> , 28th Annual ACM Symposium on Theory of Computing (1997)	
	AAA	PURSLEY et al. "Variable-Rate Coding For Meteor-Burst Communications" IEEE Transactions on Communications, US, IEEE Inc. New York (1989) Vol. 37, No. 11, pages 1105-1112, XP000074533	
	ABB	SESHAN et al. "Handoffs In Cellular Wireless Networks: The Daedalus Implementation and Experience" Wireless Personal Communications, NL, Kluwer Academic Publishers, Vol. 4, No. 2, 1 March 1997, pages 141-162, XP000728589	
	ACC	SHACHAM, N., "Packet Recovery And Error Correction In High-Speed Wide-Area Networks," Proceedings Of The Military Communications Conference. (Milcom), US, New York, IEEE, Vol. 1, Pages 551-557, (1989), XP 000131876	
Examiner Signature		Date Considered	

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